METHOD AND APPARATUS FOR DISTRIBUTING SOFTWARE AND USER TERMINAL USING THE SAME

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a network system, and it particularly relates to a technology for transmitting software.

2. Description of the Related Art

[0002] In recent years, personal computers (PCs) have come rapidly into wide use in our ever[technology]-growing technological society, and competition in regard to [of their] computer performance has become[s] very [severe] intense. For example, [recall that] the standard capacity of a hard disk drive was [of some] approximately [100 MB] one hundred megabytes (100 MB) [order] only a few years ago, but [some] now a disk drive of [10 GB order] ten gigabytes (10 GB) has become[s] [a] the standard [of today] for [the] hard disks [of] in the same price range. Thus, [a general] the average user today can store as much data as [he/she] he or she wishes on their hard drive, so that the user need not pay nearly as much attention [so much] to the remaining vacant storage of the hard disk as may have been necessary in the past.

[0003] Moreover, as the CPU performance and graphics [drawing] capability of today's PCs have significantly [are rapidly] improved, [a] the data size of software [is] has also increased [enlarged]. [The] Software is supplied not only

in the form of recording media such as a CD-ROMs or the like, but are also often[times] provided via communication links such as the Internet [or the like]. Thanks to various high speed communication technologies developed in recent years [as to the speed of the Internet communications], [the stress] user anxiety [accompanied by the] associated with slow downloads[ing] of [the] software has been on the [tends to] decrease.

[0004] However, [the] high-speed Internet communication is actually only available to a relatively small number of [few] people, and is not a commonly shared technology yet. This is because the higher the speed of the Internet service, [is] the higher the connection and usage fees charged to users. [therefor becomes, and] There are also special hardware [needs] requirements that may need to be purchased [also] to support the higher speed communication connections. [In particular] As an example, the telecommunication fees are extremely high in Japan today, which [is] has recently been criticized by other countries. [and thus] As a result, there are a great number of Internet users in Japan, and other places with high Internet connect and usage fees, who feel stressed about the costs involved when downloading [the] software if they believe the process will take an extended period of time.

SUMMARY OF THE INVENTION

[0005] The present invention has been made in view of the foregoing drawbacks, and an object thereof is to provide a technology by which to transmit software with further increased convenience and usability.

[0006] An aspect of the present invention relates a software distributing method. This is a method [by which to] of distribut[e]ing software to a user terminal[, and] which includes: decomposing the software into a plurality of recombinable data segments [data]; registering the [a] plurality of [the] data segments [data] to a predetermined site; detecting linkage of the user terminal to the site; and transmitting each of the [a] plurality of [the] data segments [data] to the user terminal in a sequence each [every] time the linkage is detected.

[0007] The data segments [data] are those in which certain data are decomposed into smaller-size data. In a preferred embodiment, the [those are] data segments [data bearing] are in a format such that [in which] the original software can be reorganized by recombining the data segments [them]. Moreover, before the data is [are] decomposed into segments, an encryption or data compression process[ing] may be performed on the software. [Moreover,] A format of data segments [data] may also be so arranged that the software is allowed to be installed [for installation] only when all data segments [data] are recombined.

[0008] By implementing this method, software composed of [having the] large-volume[capacity] data [therein] can be downloaded in such a manner that the user is unaware of the actual download[ing] process [thereof,] so that the software data [it] can be transmitted without causing [a] stress to the user due to concerns about connection and usage fees.

[0009] Another aspect of the present invention relates to a software distributing apparatus. The [This] apparatus [is an apparatus which] distributes software to a user terminal, and includes: a dividing unit which decomposes the software into a plurality of recombinable data segments [data]; a site registration unit which registers a plurality of the data segments [data] to a predetermined site; a link monitor which supervises a link state between the user terminal and the site; and a data transmission unit which selects unsent data from a plurality of the data segments [data] every time the user terminal is linked to the site, and transmits the unsent data to the user terminal. This apparatus may be a server connected to the Internet.

[0010] The dividing unit may subdivide the software into a data size to the degree the user is unaware of the downloading process [thereof], and the data transmission unit may transmit a plurality of the data segments [data] to the user terminal without notifying the user terminal of the data transmission.

[0011] Still another aspect of the invention relates to a user terminal. The user terminal includes: a link processor which establishes a link with a

registered site of a plurality of data segments [data], every time the user terminal is linked to the Internet, where software is decomposed in a recombinable format; and a data receiving unit which downloads from the registered site at least a single one [set] from among the [a] plurality of [the] data segments [data].

[0012] The link processor may establish a link with the registered site every time the user terminal accesses any of a plurality of Web pages included in a predetermined related site. The user terminal may further include: a data storage which stores installed software; and an installation processor which, when the data receiving unit downloads all of a plurality of the data segments [data], recombines the data segments, [data] and installs the recombined data segments [data] to the data storage.

[0013] Moreover, any [arbitrary] combination of the above-mentioned structural components in the present invention [as well as the structural components and expressions according to the present invention is] are still effective as an embodiment of the present invention when applied as or substituted between an apparatus, a method, a system and so forth.

[0014] Moreover, this summary of the invention does not necessarily describe all necessary [necessarily] features so that the invention may also be sub-combination of these described features.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Fig. 1 illustrates an overall structure of a network system 10 according to an embodiment of the present invention.

[0016] Fig. 2 shows a structure of a software distributing server 14.

[0017] Fig. 3 shows a structure of a user terminal 12.

[0018] Fig. 4 shows a flow of encryption, decomposition and registration of the software in this order.

[0019] Fig. 5 shows a flow of the decomposition and registration of the software comprised of a plurality of functional modules.

[0020] Fig. 6 is a [flowchart] flow chart showing an operational procedure of the software distributing server 14.

[0021] Fig. 7 is a [flowchart] flow chart showing an operational procedure of the user terminal 12.

[0022] Fig. 8 is a screen example, displayed on the user terminal, to confirm with the user whether or not transmission of the data segments [data is] are permitted.

[0023] Fig. 9 is a screen example, displayed on the user terminal 12, to confirm whether or not the installation of software is permitted.

DETAILED DESCRIPTION OF THE INVENTION

[0024] The invention will now be described based on the preferred embodiments, which is [do] not intended to limit the scope of the present invention, but rather to exemplify the invention. All of the features and the combinations thereof described in the embodiment are not necessarily essential to the invention. User utterance and agent utterance, which may also be described as command and response, respectively, are indicated simply as "utterance" in the figures.

[0025] In a network system described herein [hereinafter], a principal objective thereof is to reduce burdens such as stress placed on a user in the course of downloading software for a considerable duration of time, [of duration] due to concerns regarding excessive connection and usage fees. As a means for achieving the objective, a technique according to the present invention is utilized in which software data is [are] divided or decomposed into portions of an appropriately small size so that the software data can be [are] downloaded in a manner [to the degree] such that the user is almost unaware of the [a] downloading operation. Moreover, as a means by which the [user is almost unaware of a timing at which the] timing of the download[ing] operation might be kept unknown to the user, [is actually performed,] a method is implemented in

which a user terminal and a server are linked automatically. Moreover, as another means by which the user may be kept [is] almost unaware of the downloading operation, the divided (decomposed) data is [are] distributed to a plurality of Web pages, and these Web pages may be given an amusement value and a game-playing value.

[0026] Fig. 1 illustrates the [an] overall structure of a preferred embodiment of the network system 10 of the present invention [according to an embodiment of the present invention]. The network system 10 includes a plurality of user terminals 12 and a software distributing server 14. The software distributing server 14 is connected to a plurality of [the] user terminals 12 via the Internet or other electronic network. The software distributing server 14 may include a [WWW w] Web server, and may be an exclusive-use server which exhibits the functions of the software distributing server according to the present invention. The software distributing server 14 can distribute software to the user terminals 12 by way of the Internet.

[0027] The software distributing server 14 can be realized[,] in terms of hardware[,] by a CPU, a memory, or an LSI of a[n arbitrary] computer. The supporting software for the software distributing server 14 may comprise [and, in terms of software, by a] software distributing functions loaded in a memory and a program with downloading functions[, and so forth]. The schematic diagram presented here, however, only shows the functional blocks which can be realized by interaction therebetween. Thus, it is to be understood by those

skilled in the art that these functional blocks can be realized in various forms by the use of hardware only, software only, or [in] any combination thereof.

[0028] Fig. 2 shows the [a] structure of [the] a preferred embodiment of the software distributing server 14. The software distributing server 14 comprises mainly a software storage 16, a software encryption unit 18 and a dividing unit 20. The software storage 16 stores software to be distributed. The software here may be not only programs executable by a computer, but may also include multimedia content[s] in which music, [movie] video, and [so forth] various other types of multimedia data are [data-]encoded. The encryption unit 18 performs an encryption process on the software stored in the software storage 16. The encryption here includes a process which converts software into data formats suitable for [a] transfer [in the] via Internet communications, and [a] for data compression processing[, and the like]. The encryption is performed in a format on the condition that a dividing process will be carried out later. This format may be such that a recombination process, an unzip process, an installation process and the like are automatically performed when all of the plurality [plural] data segments [data] become available.

[0029] The dividing unit 20 divides software into a plurality of data segments [data]. The data segments [data] are in a [data] format which allows [can be combined again] them to be recombined [(recombinable)] to recreate the original complete software data file. For example, the data segments [data] may be such that they are recombinable only when all of [plural] the plurality of

data segments [data] are present. [As]In another format or form, for example, each of the plurality of data segments [data] may have each function of the software. In this case, a scheme may be provided in a manner such that an installation becomes possible every time each data segment [data] is acquired, [and, moreover] as well as [a] functions [is] added one by one [every] each time a [each] data segment [data] is installed.

[0030] The dividing unit 20 may subdivide the software into [a] data segment sizes [to the degree] of sufficiently small size that a user is unaware of the downloading operation being performed in the background [thereof]. For example, when the software is subdivided into a data size varying from, for example, [of some KB to some 10 KB order] one to ten kilobytes, the data thus subdivided can be downloaded almost instantaneously [in theory]. Thus, the user stress potentially accompanied by extended [the] software downloads [downloading] can be significantly reduced.

[0031] As shown on Fig. 2, the software distributing server 14 further comprises [includes] a site registration unit 22, a site data storage unit 24, and a data transmit-receive unit 32. The site data storage unit 24 stores data such as hypertexts displayed on a Web site and using a [WWW] Web server program. These data are stored with [on] the assumption that they will be made public on the Internet. The site data storage unit 24 is affiliated with the data transmit-receive unit 32 so as to realize a function of the [WWW] Web server.

[Hereinbelow,] A site made public in the Internet by the [WWW] Web server will hereinafter be [simply] referred to simply as a ["]registered site["].

[0032] The site registration unit 22 registers a plurality of software [the] data segments [data] in the site data storage unit 24. In this case, the data segments [data can] may be acquired one by one each [every] time the user accesses to the registered site. [Then] In this manner, the user may [can] acquire all of the data segments [data] by a predetermined number of accesses[,] so as to recombine and install the complete software file for the first time. Thereby, [repetition of accessing] repetitive access to the registered Web site can be expected.

[0033] The site registration unit 22 may register each of a plurality of [the] data segments [data] with [in] a plurality of [web] Web sites associated with [included in] the registered site in a distributed manner. For example, the data segments [data] may be [are] hidden in any of a plurality of the registered [web] Web sites[,] so that data segments [data] may be acquired each [every] time the [use] user accesses these pages. For example, the data segments [data] may be associated with registered [in web] Web pages having an [the] amusement value, such as might be derived from playing an online [and] video game[-playing value]. Thereby, a presentation such as a treasure hunt style video game or the like may be offered on the registered Web sites [performed,] so that the user can effectively browse around all areas of the Web [every corner of the] site.

[0034] The software distributing server 14 further includes a data selector 26, a transmission permit-deny confirming unit 28 (also referred to hereinafter as a transmission-permit confirming unit[hereinbelow]) and a link monitor 30. The link monitor 30 supervises a link state between the registered site and the user terminal 12. Then, every time a link is detected, each of a plurality of the data segments [data] is transmitted, one at a time, to the user terminal 12.

[0035] Writing the software data segments [data] to the user terminal 12 without permission from the user [is not a pleasant act to] may not be an action desired by the user even though the data segments [data] are verified as [confirmed] safe. Thus, the transmission-permit confirming unit 28 confirms whether or not transmission of the data segments [data] will [shall] be permitted by the user. The ["]permission or denial["] of transmission determined by [in] the transmission permit-deny confirming unit 28 takes [a] one form by [of] confirming transmission approval [it] directly with [to] the user and another form by [of] confirming transmission approval [it] based on data stored in the transmission permit-deny confirming unit 28.

[0036] For example, if all of the [a] plurality of [the] data segments [data] are not transmitted to the linked user [linked], the permission or denial of the transmission may be confirmed directly with the user. Also, [Moreover, for example,] if it is the first time access by [from] the user, the permission or denial of the transmission may be confirmed directly with the user. A plurality of the data segments [data] are transmitted only when the user permits its

transmission via a confirmation to the transmission permit-deny confirming unit 28.

[0037] The transmission permit-denial confirming unit 28 shown in Fig. 2 records the user's permission and denial of the transmission. By referring to this record, the transmission permit-denial confirming unit 28 can confirm permission or denial of the transmission [from] the next time [when] the link is established. Once the user gives initial permission for [permits] the transmission of [a plurality] some portion of the software data segments [data], [the] remaining data segments [data] may be transmitted in subsequent accesses to the registered web pages [from the next time on] without notifying the user. When the software data is [are particularly] subdivided into segments [the data size to the degree] small enough that the user is unaware of the downloading process, [thereof] and [thus] the transmission can be [is] made without [notifying the] user notification subsequent to the initial approval, [from the second time on,] the user will be relieved of the cost and time concerns associated with extended software downloads [does not feel stressed] since [he/she] he or she is unaware of the data download[ing] being performed as a background process.

[0038] The data selector 26 selects unsent data from a plurality of the data segments [data] every time the user terminal 12 is linked to the registered site. The selected data is [are] transmitted to the user from a data transmit-receive unit 32 via the Internet.

[0039] Fig. 3 shows the [a] structure of a preferred embodiment of a [the] user terminal 12. The user terminal 12 is equipped with functions necessary for downloading the data segments [data] from the software distributing server 14[,] in the form of hardware and software.

[0040] The user terminal 12 is [mainly] comprised of a data receiving unit 40, a link processor 42, and a connection monitor 44. The data receiving unit 40 downloads one or more segments of the [a] plurality of [the] data segments [data] from a registered site. The connection monitor 44 supervises whether or not the user terminal 12 is connected to the Internet. When connection to the Internet is detected, the link processor 42 establishes a linkage with the registered site. For example, software [by] which establishes a link between the user terminal 12 and the registered site [is established] every time the user terminal 12 is connected to the Internet may be activated by the link processor 42.

[0041] In a preferred [According to the present] embodiment, the link to the registered site is established based on whether or not the user terminal 12 is connected to the Internet. [According to] In another preferred embodiment, the link to the registered site may be established based on whether or not the user terminal 12 [is] accesses[d to] a predetermined related site. The related sites are typically operated [mainly] by an external [WWW] Web server. A plurality of home pages may be designated as the related sites, [so] such that whenever the user accesses [reads] these home pages, the link to the registered site is

established in a non-display manner. For example, suppose that a plurality of companies affiliate[s] in campaigning for a particular event[s] or product.[s, then] An arrangement may be made such that [the] software data segments [data] in which data for the [a] campaign song have already been [are] decomposed are automatically downloaded to a user's terminal 12 whenever the user visits home pages of the[se] affiliated companies.

[0042] The user terminal 12 shown in Fig. 3 further comprises [includes] a data storage 48 and an installation processor 46. The data storage 48 stores software which has been installed. The installation processor 46 installs the software in the data storage 48. When all software data segments [data] are stored in the data storage 48, the installation processor 46 recombines the[se] data segments [data]. [Then,] The installation processor 46 then installs the recombined software in the data storage 48 in a manner such that [its] the full functionality of the software is thereby enabled [can be exhibited]. If the software is encrypted, the installation processor 46 decodes the encrypted software. If the software is compressed, the installation processor 46 preferably functions to decompresses [unzips] the compressed software.

[0043] Fig. 4 shows a flow of a preferred process of encryption, decomposition, and registration of the software performed by the apparatus [in this order]. First [of all], software 60 is encrypted by the encryption unit 18 so as to be converted to encrypted data 62. The encrypted data 62 may be data in which the software 60 is compressed. The encrypted data 62 is [are]

decomposed into a plurality of data segments [data 1 to N] 1...N by the dividing unit 20. [A] The plurality of [the] data segments [data 1 to N] 1...N are registered in a plurality of Web pages [1 to N] 1...N by the site registration unit 22.

[0044] Fig. 5 shows a flow of the decomposition and registration of the software, which is comprised of a plurality of functional modules. The software which contains [a] the plurality of [the] functional modules 1...N is decomposed by the dividing unit 20 into a plurality of data segments representing the functional modules 1...N, [1 to N] and an execution file [by the dividing unit 20]. [A] The plurality of data segments representing the functional modules 1...N, [1 to N] and the execution file are then [put] placed together into a single registered site by the site registration unit 22. For example, the execution file [is] may be downloaded at the time of the first access to a registered Web site and[,] on subsequent accesses to the Web site [from the second access on], the data segments [data as] representing the functional modules 1...N may be [are] downloaded one at a time. The downloaded functional modules 1...N may be automatically installed every time another one of the functional module data segments is downloaded to the user terminal 12. Moreover, the functions of the software owned by the user may be version-updated every time the access is made to the registered site.

[0045] Fig. 6 is a [flowchart] flow chart showing a preferred embodiment of an operational procedure of the software distributing server 14. First[ly], the

encryption unit 18 encrypts the software (S10). Next, the dividing unit 20 decomposes the encrypted software into a plurality of data segments [data] (S12). [Then] Next, the site registration unit 22 registers a plurality of the data segments [data] in a Web site (S14). Next, the link monitor 30 supervises a link state between the site and the user terminal 12 (S16, S16N). When a link is established between the user terminal 12 and the site (S16Y), whether [or not] the access from this user terminal 12 is made for the first time is [judged] determined (S18). When the access is made for the first time (S18Y), the transmission permit-deny confirming unit 28 confirms with the user about permission or denial of the transmission (S20). If the user permits the transmission (S20Y, S18N), the data selector 26 selects unsent data from [a] the plurality of the data segments [data]. The selected data are transmitted to the user terminal 12 via the data transmit-receive unit 32 (S24). The procedures from S16 through S24 will be repeated until transmission of all data segments [data] has been completed (S26).

[0046] Fig. 7 is a [flowchart] flow chart showing a preferred embodiment of an operational procedure of the user terminal 12. First[ly], the connection monitor 44 monitors a connection state between the user terminal 12 and the Internet (S30). When the user terminal 12 is connected to the Internet (S30Y), a link is established by the link processor 42 (S32). When the link is established, a single set of data segments [data] is downloaded by the data receiving unit 40 (S34). The procedures from S30 through S34 are repeated until the downloading of all data segments [data] are completed (S36). When

all of the data segments [data] are downloaded (S36Y), the [those] data segments [data] are recombined by the installation processor 46 (S38). Thereafter, the [thus] recombined software is installed by the installation processor 46 (S40).

[0047] Fig. 8 [is] illustrates a preferred embodiment of a screen display [example, displayed] shown on a [the] user terminal 12[,] to confirm with the user whether [or not] transmission of the data segments [data] is permitted or not. When all of the data segments [data] are not transmitted, or the access is made for the first time, this confirmation screen is preferably [will be] displayed. Moreover, when the user subsequently [the] accesses [is made to] the registered site [from the next time on], the option of whether [or not] the user wishes to omit a confirmation window in the future may [be] also be confirmed at that time [then]. When the user clicks on "Yes", the downloading of the data segments [data] preferably begins [is started]. Also [Moreover], "From next time on, omit this confirmation" is preferably displayed and the user is allowed to check[ed] with a mark indicating "Yes", resulting in the data segments [data will be] being downloaded in the future without the user being notified [to the user, from the next time on].

[0048] Fig. 9 [is] illustrates a preferred embodiment of a screen display [example, displayed] shown on a [the] user terminal 12[,] to confirm whether or not the installation of software is permitted. After all data segments [data] have been downloaded, this screen is preferably [will be] displayed. When the user

clicks on "Yes", the recombined software is automatically installed in the user terminal 12. The display of the screen notifies the user that the downloading of all data segments [data] has been completed. The preferred embodiments described above utilize a method in which the user is almost unaware of the downloading[,] process, so that the user may [that there is no wonder if the user does] not notice [at all] the completion of the software download[ing]. Thus, notifying the user of the completion of the download[ing] process [can be safely said to] effectively completes the above method.

[0049] The present invention has been described based on the embodiments which are only exemplary. It [is] should be understood by those skilled in the art that there exist other [various] modifications to each component, and the combination of [each] processes[ing] described, [and] that such modifications are encompassed by the scope of the present invention. Such [the] modifications include, but are not limited to, the following.

[0050] Though in the above-described embodiments the software distributing server 14 [itself] is capable of performing [equipped with] the functions of the [WWW] Web server, including those of the site data storage unit 24, these functions may also be realized by a server other than the software distributing server 14. [This another] In such an embodiment, the additional server is connected to the software distributing server 14 via the Internet or other electronic network.

[0051] [Moreover,] In another preferred embodiment, a plurality of the data segments [data] may be registered over a plurality of Web sites, and may also be registered over a plurality of Web pages included in these sites. The registered sites or related sites may have arbitrary physical or virtual structures.

[0052] Though in the above-described embodiments the link between the user terminal and the registered site is established when the user terminal [gets] connects[ed] to the Internet, the user terminal 12 may also [get] connect[ed] to the software distributing server 14 via a local area network (LAN) [LAN], a wireless network, or other similar network connection [and the like]. Moreover, a substitute[-like] server [which is] connected to the software distributing server 14 via a network such as the Internet[,] may download software collectively, [so that] allowing the substitute server to [may] distribute the software data segments [data] to the user terminal 12.

[0053] In the user terminal 12, the functions to download the data segments [data] may be realized in the form of Internet browser software or file transfer protocol (FTP) [ftp] software installed in the user terminal 12. Moreover, the downloaded data segments [data] may be in the form of CGI, applets, or similar software [the like which is] operable [in] on the user side.

[0054] The user terminal 12 may be structured such that a software downloading form is selectable between a segment form or a non-segment

form. Thus, the user can download data in an environment most suitable for the user.

[0055] [According to the present embodiments, the user's convenience for the downloading of data can be significantly increased.]

[0056] Although the present invention has been described by way of exemplary embodiments, it should be understood that many changes and substitutions may be made by those skilled in the art without departing from the spirit and the scope of the present invention, which is defined by the appended claims.

WHAT IS CLAIMED IS:

1. A method of distributing software to a user terminal, comprising:

decomposing the software into a plurality of recombinable segment data;

registering a the plurality of the segment data to a predetermined site;

detecting linkage of the user terminal to the site; and

transmitting each of a plurality of the segment data to the user terminal in a sequence every time the linkage is detected.

2. An apparatus for distributing software to a user terminal, comprising:

a dividing unit which decomposes the software into a plurality of recombinable segment data;

a site registration unit which registers a plurality of the segment data to a predetermined site;

a link monitor which supervises a link state between the user terminal and the site; and

a data transmission unit which selects unsent data from a plurality of the segment data every time the user terminal is linked to the site, and transmits the unsent data to the user terminal.

3. An apparatus according to Claim 2, further comprising an encryption unit which encrypts the software,

wherein said dividing unit decomposed the encrypted software into a format of segment data such that the software is allowed for installation only when all segment data are recombined.

4. An apparatus according to Claim 2, wherein said dividing unit subdivides the software into a data size to the degree that the user is unaware of the downloading thereof, and

wherein said data transmission unit transmits a plurality of the segment data to the user terminal without notifying the user terminal of the data transmission.

5. An apparatus according to Claim 3, wherein said dividing unit subdivides the software into a data size to the degree that the user is unaware of the downloading thereof, and

wherein said data transmission unit transmits a plurality of the segment data to the user terminal without notifying the user terminal of the data transmission.

6. An apparatus according to Claim 2, wherein when the user terminal is linked to the site, said link monitor confirms with a user as to whether or not transmission of a plurality of the segment data is permitted.

7. An apparatus according to Claim 3, wherein when the user terminal is linked to the site, said link monitor confirms with a user as to whether or not transmission of a plurality of the segment data is permitted.

8. An apparatus according to Claim 4, wherein when the user terminal is linked to the site, said link monitor confirms with a user as to whether or not transmission of a plurality of the segment data is permitted.

9. An apparatus according to Claim 2, wherein said site registration unit registers each of a plurality of the segment data to a plurality of Web pages included in the site in a distributed manner.

10. An apparatus according to Claim 3, wherein said site registration unit registers each of a plurality of the segment data to a plurality of Web pages included in the site in a distributed manner.

11. An apparatus according to Claim 4, wherein said site registration unit registers each of a plurality of the segment data to a plurality of Web pages included in the site in a distributed manner.

12. An apparatus according to Claim 6, wherein said site registration unit registers each of a plurality of the segment data to a plurality of Web pages included in the site in a distributed manner.

13. A user terminal, comprising:

a link processor which establishes a link with a registered site of a plurality of segment data, every time the user terminal is linked to a network, where software is decomposed in a recombinable format; and

a data receiving unit which downloads from the registered site at least a single set among a plurality of the segment data.

14. A user terminal according to Claim 13, wherein said link processor establishes a link with the registered site every time the user terminal accesses any of a plurality of Web pages included in a predetermined related site.

15. A user terminal according to Claim 13, further comprising:

a data storage which stores installed software; and

an installation processor which, when said data receiving unit downloads all of a plurality of the segment data, recombines the segment data and installs the recombined segment data to said data storage.

16. A user terminal according to Claim 14, further comprising:

a data storage which stores installed software; and

an installation processor which, when said data receiving unit downloads all of a plurality of the segment data, recombines the segment data and installs the recombined segment data to said data storage.

17. A user terminal according to Claim 13, wherein the segment data to be downloaded by said data receiving unit is in a form operable at user side.

18. A user terminal according to Claim 13, wherein a downloading form is selectable between a segment form and a non-segment form according to a user's environment.

ABSTRACT OF THE DISCLOSURE

A software distributing server in which software is downloaded in a smooth and stress-free manner. The software distributing server segments the software into a plurality of recombinable data segments [data], and registers them in a predetermined site. A link monitor supervises a link state between a user terminal and the site, and a data transmit-receive unit transmits unsent data to the user terminal [every] each time a link is detected.